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Rejections under 35 U.S.C., §103

Claims 1-3, 5-7, 10, 11, 13-15, 17-19, 22, 23, 25-27, 29-31, 34 and 35 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,360,266 to Pettus in combination with Aldred (U.S. patent 5,719,942).

Pettus, U.S. 6,360,266:

Pettus is concerned with addressing the difficulty of accessing network resources, due to a lack of consistent, globally-accessible directory of network resources that can operate over heterogeneous networks without involving the user in the details and the protocol involved in accessing the separate networks. (col. 4, lines 5-10). Pettus describes a communications directory service located on each node of a network, including a tree structure to which existing directory services and other network services can be added. The tree structure has a plurality of nodes each of which includes specific methods that query and browse the associated directory service if such actions are supported by an underlying service. A service object includes the service exchange address and communication link configuration information. A client desiring to access a remote service retrieves the appropriate service object from the communications directory service and uses the service object to set up the communications path. (Pettus, Abstract).

Aldred, U.S. Patent 5,719,942:

Aldred describes a system and method for establishing a path between a source node and a destination node. A request for a channel having specified characteristics is issued by the source node to an intermediate node. Each intermediate node in the path between the source and

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destination determine whether or not it has the available communication resources to support the request. If so, sufficient communication resources are reserved for the request, and the request is forwarded to the next intermediate node until the destination node is reached. After indication by the intermediate nodes that the communication can be supported, an indication is sent to the source node. If a positive indication is received, the communication channel is established. (Aldred, Abstract).

Examiner's argument:

The Examiner states, at page 3 of the office action, "Pettus teaches an identifier associated with a specific type (stack definition) of information (different type of communication link) to be transferred on the path (stack definitions each consist of a set of layer definitions that specify the processing carried out in each layer and the interaction between the layers... in particular a stack definition is provided for each different type of communication link; column 10, lines 50-60) but does not specifically teach including a unique identifier in the notify message.

However, Aldred942 teaches establishing data communication links between applications (column 6, lines 15-32) and a notify message including a unique identifier (channel characteristics) to identify the path (channels can be explicitly created by an API call... specifying the required channel characteristics, column 7, lines 23-67; channel creation may specify the data type, sub-type and throughput, column 17, line 63-column 18, line 5), the unique identifier associated with a specific type of information to be transferred on the path (four types of channels are supported; standard, merged, synchronous and serialized, column 6, lines 57-67).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of a notify message including a unique identifier to identify a specific type of information to be transferred on the path as taught by Aldred942 to the invention of Pettus, because separate logical datapaths with their associated data types ease inter-application operation by presenting the data components individually with their nature and format independently available... (column 28, line 63-column 29, line 6).

Combination neither describes nor suggests the claimed invention

Claim 1 recites "...A method of establishing communication between a first application and a second application, the second application executing on a platform, the method comprising ... forwarding a notify message to the second application, receipt of the notify message by the second application causing the second application to ascertain path data for establishing a path between the first application and the second application, *the notify message including a unique identifier to name the path, the unique identifier associated with a specific type of information to be transferred on the path*, ... the first application ascertaining path data for establishing the path between the first application and the second application; and the first application and second application establishing the path between the first application and the second application after the path data is ascertained by the first application and the second application..."

No such 'unique identifier' is described, suggested or taught by Aldred, Pettus or the combination thereof. As mentioned previously, Pettus neither describes nor suggests "the notify message including a unique identifier to name the path, the unique identifier associated with a specific type of information to be transferred on the path..." Rather, Pettus describes only, at column 16, lines 37-47:

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“... a separate data path is set up to send service requests from application program 1100 to the remote service. This separate data path comprises data path 1102, client interface 1126 and the session layer 1123 of the DRPS 1124. In accordance with step 1212, the request information then sent out over physical communication link 1130 to the remote service location.”

Although Aldred describes a method wherein one of four types of channels are generated (i.e., standard, merged, synchronous, and serialized), the very fact that the channel characteristic is selected from a group makes the ‘characteristic’ *non-unique*. In addition, the channel characteristic is not used to ‘name the path’, but rather used to generate the path (i.e., by identifying intermediate nodes that are capable of supporting the communication needs of the source).

One advantage that is realized by the present invention, which is not taught or suggested by Pettus, Aldred or the combination thereof, is described in the specification of the current invention, at page 14. “Each application program 14 coupled to a given channel 48 thus forwards the specified type of data across such channel 48. Accordingly, messages received via a given channel 48 do not require header information identifying it as a specific type of message...” Neither Pettus, Aldred nor the combination describe, suggest or enable such a feature. Accordingly, for at least this reason, claim 1 is patentably distinct over Pettus, and the rejection should be withdrawn.

Independent claims 13 and 25 have also include the patentable limitation of “..., the notify message including *a unique identifier to name the path*, the unique identifier associated with a specific type of information to be transferred on the path ...” and accordingly the rejection

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for these independent claims has been overcome as well. Dependent claims 2-12, 14-24 and 26-35 are allowable for at least the reason that they serve to limit patentable parent claims.

Claims 4, 12, 16, 24, 28 and 36:

Claims 4, 12, 16, 28 and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over Pettus and Aldred 942 further in view of Aldred (U.S. patent No. 5,539,886).

Aldred886 describes the concept of application sharing sets. Aldred states:

"... Applications are expected to collaborate with other applications, and the mechanism for this collaboration is that they join each other in named application sharing sets. The essence of such an application sharing set is that all set members receive information in the status of all the other members; joining a set is the way in which applications declare those in which they have an interest..."

Claim 4 recites "...the first application forwarding a first ready message to the second application, the second application forwarding a second ready message to the first application... forwarding messages between the first and second application via the path after receipt of each ready message..." Claims 16 and 28 include similar limitations.

The Examiner admits, at page 3 of the office action, that Pettus does not teach forwarding ready messages. The Examiner states "... Aldred teaches (column 31, lines 1-20) ready messages (SHARE_CONFIRMED). It would have been obvious to apply ready messages as

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taught by Aldred to the invention of Pettus because it would allow the connected applications to notify each other that they are ready to start communications.

Combination neither describes nor suggests claimed invention

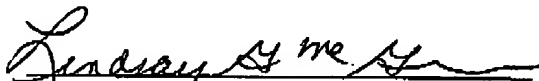
As discussed above, Pettus describes an architecture for directory services, in which data paths are set up using a remote service location. Aldred describes a different architecture, wherein applications can be 'shared'. However, the combination of the two neither describes nor suggests the limitations of the claimed parent, of "..., *the notify message including a unique identifier to name the path, the unique identifier associated with a specific type of information to be transferred on the path_...*" Accordingly, for at least this reason the rejection is overcome and should be withdrawn.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Lindsay McGuinness, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

1/5/2004
Date


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CLAIMS

1. (Currently amended) A method of establishing communication between a first application and a second application, the second application executing on a platform, the method comprising:

forwarding a notify message to the second application, receipt of the notify message by the second application causing the second application to ascertain path data for establishing a path between the first application and the second application, the notify message including a unique identifier to identify name the path, the unique identifier associated with a specific type of information to be transferred on the path ;

the first application ascertaining path data for establishing a the path between the first application and the second application; and

the first application and second application establishing the path between the first application and the second application after the path data is ascertained by the first application and the second application.

2. (Original) The method as defined by claim 1 further comprising:

forwarding a reply message to the first application, the reply message notifying the first application that the second application is executing.

3. (Original) The method as defined by claim 2 wherein the first application ascertains the path data after receipt of the reply message.

4. (Original) The method as defined by claim 1 further comprising:

the first application forwarding a first ready message to the second application;
the second application forwarding a second ready message to the first application;
forwarding messages between the first and second application via the path after receipt of each ready message.

5. (Original) The method as defined by claim 1 wherein the first application and the second application establish a path by ascertaining the path data from a configuration file that includes the path data.

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6. (Original) The method as defined by claim 5 wherein the path data is retrieved from the configuration file by the first application and the second application.
7. (Original) The method as defined by claim 5 wherein the path data is retrieved from the configuration file by a path function that forwards a path message to the first application and the second application, the path message including the path data.
8. (Previously Amended) The method as defined by claim 1 wherein each message forwarded between applications includes data identifying the path and channel associated with the message.
9. (Original) The method as defined by claim 8 wherein the first application is considered to have been added to the platform when it is loaded into a volatile memory device on the platform.
10. (Original) The method as defined by claim 1 wherein the second application is considered to be executing after the second application is initialized.
11. (Original) The method as defined by claim 1 wherein an application is considered to be executing after it is initialized on the platform and before it stops running.
12. (Original) The method as defined by claim 1 wherein the path includes a plurality of channels wherein each channel includes an associated handler function, each handler function processing messages in its assigned channel in a uniform manner.
13. (Currently amended) An apparatus for establishing communication between a first application and a second application, the second application executing on a platform, the apparatus comprising:
- a first output that forwards a notify message to the second application, receipt of the notify message by the second application causing the second application to ascertain path data for establishing a path between the first application and the second application, the notify message

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including a unique identifier to ~~identify~~ name the path, the unique identifier associated with a specific type of information to be transferred on the path;

a first controller that controls the first application to ascertain path data for establishing a path between the first application and the second application; and

a second controller that controls the first application and second application to establish a path between the first application and the second application after the path data is ascertained by the first application and the second application.

14. (Original) The apparatus as defined by claim 13 further comprising:

a second output that forwards a reply message to the first application, the reply message notifying the first application that the second application is executing.

15. (Original) The apparatus as defined by claim 14 wherein the first application ascertains the path data after receipt of the reply message.

16. (Original) The apparatus as defined by claim 13 further comprising:

a third controller that controls the first application to forward a first ready message to the second application;

a fourth controller that controls the second application to forward a second ready message to the first application, messages being forwarded between the first and second application via the path after receipt of each ready message.

17. (Original) The apparatus as defined by claim 13 wherein the second controller includes a path data ascertainment that ascertains the path data from a configuration file that includes the path data.

18. (Previously Amended) The interface as defined by claim 12 wherein each message forwarded between the applications includes data identifying the path and channel associated with the message.

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19. (Original) The apparatus as defined by claim 17 wherein the path data is retrieved from the configuration file by a path function that forwards a path message to the first application and the second application, the path message including the path data.

20. (Original) The apparatus as defined by claim 13 wherein the notify message is generated by a monitoring function that monitors the platform, the monitoring function responsively generating the notify message upon detecting the first application has been added to the platform.

21. (Original) The apparatus as defined by claim 20 wherein the first application is considered to have been added to the platform when it is loaded into a volatile memory device on the platform.

22. (Original) The apparatus as defined by claim 13 wherein the second application is considered to be executing after the second application is initialized.

23. (Original) The apparatus as defined by claim 13 wherein an application is considered to be executing after it is initialized on the platform and before it stops running.

24. (Original) The apparatus as defined by claim 13 wherein the path includes a plurality of channels wherein each channel includes an associated handler function, each handler function processing messages in its assigned channel in a uniform manner.

25. (Currently amended) A computer program product for use on a computer system for establishing communication between a first application and a second application, the second application executing on a platform, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code including:

program code for forwarding a notify message to the second application, receipt of the notify message by the second application causing the second application to ascertain path data for establishing a path between the first application and the second application, the notify message

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including a unique identifier to identify name the path, the unique identifier associated with a specific type of information to be transferred on the path;

program code for controlling the first application to ascertain path data for establishing a path between the first application and the second application; and

program code for controlling the first application and second application to establish a path between the first application and the second application after the path data is ascertained by the first application and the second application.

26. (Original) The computer program product as defined by claim 25 further comprising:

program code for forwarding the reply message to the first application, the reply message notifying the first application that the second application is executing.

27. (Original) The computer program product as defined by claim 26 wherein the first application ascertains the path data after receipt of the reply message.

28. (Original) The computer program product as defined by claim 25 further comprising:

program code for controlling the first application to forward a first ready message to the second application;

program code for controlling the second application to forward a second ready message to the first application;

program code for forwarding messages between the first and second application via the path after receipt of each ready message.

29. (Original) The computer program product as defined by claim 25 wherein the program code for controlling the first application and the second application comprises program code for ascertaining the path data from a configuration file that includes the path data.

30. (Previously Amended) The computer program product as defined by claim 23 wherein each message forwarded between applications includes data identifying the first path and channel associated with the message.

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31. (Original) The computer program product as defined by claim 29 wherein the path data is retrieved from the configuration file by a path function that forwards a path message to the first application and the second application, the path message including the path data.

32. (Original) The computer program product as defined by claim 25 wherein the notify message is generated by a monitoring function that monitors the platform, the monitoring function responsively generating the notify message upon detecting that the first application has been added to the platform.

33. (Original) The computer program product as defined by claim 32 wherein the first application is considered to have been added to the platform when it is loaded into a volatile memory device on the platform.

34. (Original) The computer program product as defined by claim 25 wherein the second application is considered to be executing after the second application is initialized.

35. (Original) The computer program product as defined by claim 25 wherein an application is considered to be executing after it is initialized on the platform and before it stops running.

36. (Original) The computer program as defined by claim 25 wherein the path includes a plurality of channels wherein each channel includes an associated handler function, each handler function processing messages in its assigned channel in a uniform manner.

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